

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-19. (Cancelled)

20. (Currently Amended) A method of transmitting a recording comprising a sequence of data packets ~~from a server comprising a data store, a control unit and a transmitter over a network to a receiver comprising a receiver buffer~~, the method comprising:

a the server commencing transmission of the recording over the network to a the receiver;
the receiver holding received data in a said receiver buffer; and
at the server, a the control unit:

analyzing ~~the whole of~~ the recording in its entirety to determine where a point in the transmission of the recording is reached at which, if the receiver were to commence decoding data already transmitted and held in said receiver buffer, said receiver buffer would not underflow;

~~generating a control message to be sent to the receiver by said transmitter to instruct the receiver to commence decoding said received data when the point is reached; and~~

continuing transmission to the receiver,

wherein, said analyzing ~~comprises point is determined by~~ analyzing the ~~whole of~~ the recording in its entirety to calculate for each of a plurality of ~~identify a first sections in at the~~ beginning of the recording a maximum timing error value calculated as ~~which meets the condition that it covers a playing time interval greater than or equal to~~ the maximum of the extent to which the transmission time of the respective following section of the recording

exceeds its playing time interval for a following section of any length, wherein said point is determined as the end of the shortest first section that meets the condition that it covers a playing time interval greater than or equal to its respective maximum timing error value; and

~~the control message causes~~ causing the receiver to commencing playing of received data only after said first section has been received.

21. (Currently Amended) A method according to claim 20, wherein after transmission of said first section, said receiver is caused to play by transmitting said an instruction ~~start message~~ ~~is transmitted to instruct to~~ the receiver to commence playing.

22. (Currently Amended) A method according to claim 20, comprising:
transmitting to the receiver an instruction specifying the first section and wherein the receiver is caused to ~~commences~~ commence playing when said receiver recognizes that the first section is in said receiver buffer.

23. (Currently Amended) A method according to claim 20, in which:
at the server, said analyzing comprises computing ~~said~~ maximum timing error values for different sections of the sequence, and
at the receiver, the maximum timing error values are compared with the buffer contents to recognize when said first section is in the buffer.

24. (Currently Amended) A method according to claim 20, comprising:

withholding transmission of an initial part of the recording until ~~the~~ a remainder of said first section has been transmitted; and

transmitting said initial part;

wherein the receiver commences playing only when said initial part is received.

25. (Currently Amended) A method according to claim 20, including:

performing the analysis in advance of said transmission of said recording to the receiver;

and

marking ~~the~~ an identified section in the recording prior to ~~its~~ transmission of said identified section.

26. (Currently Amended) A method according to claim 20, wherein said analyzing includes:

computing, in advance, timing error values corresponding to a plurality of transmitting data rates and storing ~~them~~ the timing error values; and

subsequently estimating therefrom an error value corresponding to an actual transmitting data rate.

27. (Currently Amended) A method according to claim ~~[[19]]~~ 20, in which the analyzing comprises:

testing a timing error parameter evaluated for successive portions of the recording,

wherein the timing error parameter is first calculated in respect of a first or early portion of the recording and the timing error parameter for subsequent portions is obtained by updating the parameter obtained for the preceding portion .

28. (Currently Amended) A method according to claim ~~[[19]]~~20, in which the recording is a video recording.

29. (Currently Amended) A method according to claim ~~[[19]]~~20, in which the recording is an audio recording.

30. (Currently Amended) A method ~~as claimed in~~ according to claim ~~[[19]]~~20, wherein: the recording is transmitted in a network from the server to the receiver at a fluctuating transmitting data rate which is not known when the ~~whole of the~~ recording in its entirety is analyzed to identify a first section at the beginning of the recording which meets ~~the a~~ condition that it covers a playing time interval greater than or equal to ~~the a~~ maximum of ~~the an~~ extent to which ~~the a~~ transmission time of ~~the a~~ respective following section exceeds its playing time interval for a following data section of any length; and wherein said causing the receiver comprises a control message which causes the receiver to commence playing of received data only after said first section has been received.

31. (Currently Amended) A method ~~as claimed in~~ according to claim ~~[[19]]~~20, wherein the recording is transmitted over a network and is to be played in real time by the receiver.

32. (Cancelled)

33. (New) A method according to claim 20,

wherein a timing error parameter is calculated as the extent to which the transmission time of a following section of the recording, said following section being a section following said first section, exceeds the playing time interval for said following section, and wherein the maximum timing error value is the maximum of the timing error parameters over the set of all possible following sections of any length from said first section.

34. (New) A method according to claim 20, wherein

a timing error parameter is calculated as the extent to which the transmission time of a following section of the recording, said following section being a section following said first section, exceeds the playing time interval for said following section, and wherein the maximum timing error value is the maximum of the timing error parameters over the set of all possible following sections of any length from said first section,

wherein said timing error parameter is calculated as the sum of the timing errors from the end of said first section to the end of the following section and a timing error is the difference between the transmission time of a portion and the playing time of a portion.

35. (New) An apparatus arranged to transmit a recording comprising a sequence of data packets stored in a data store accessible by a server comprising a control unit and a transmitter over a network to a receiver comprising a receiver buffer, wherein

when the server commences transmission of the recording over the network to the receiver;

the receiver is arranged to hold received data in said receiver buffer, until at the server, the control unit: has analyzed the recording in its entirety to determine where a point in the transmission of the recording is reached at which, if the receiver were to commence decoding data already transmitted and held in said receiver buffer, said receiver buffer would not underflow;

wherein, the recording in its entirety is analyzed to calculate for each of a plurality of first sections in the recording a maximum timing error value calculated as the maximum of the extent to which the transmission time of the respective following section of the recording exceeds its playing time interval for a following section of any length, wherein said point is determined as the end of the shortest first section that meets the condition that it covers a playing time interval greater than or equal to its respective maximum timing error value, wherein

the receiver is caused to commence playing of received data after said first section has been received.

36. (New) An apparatus according to claim 35,

wherein the timing error parameter which calculates the extent to which the transmission time of a section of the recording following said first section exceeds the playing time interval for said first section is calculated as the sum of the timing errors from the end of said first section to the end of the following section; and

wherein the maximum timing error value is the maximum of the timing error parameters over the set of all possible following sections of any length from said first section.